

TMC Pooled Fund Study Quarterly Progress Report May 2009

Project Status

Brief descriptions and status of the current and future projects are provided in the following paragraphs. Additional information can be found at the TMC Pooled Fund Study web page at <http://tmcdfs.ops.fhwa.dot.gov/>.

1. List of Completed Projects

1. Configuration Management for Transportation Management Systems
2. Transportation Management Systems Maintenance Concept and Plans
3. Changeable Message Sign Operation and Messaging
4. TMC Operator Requirements and Position Descriptions, Phase 1
5. TMC Operator Requirements and Position Descriptions, Phase 2: Interactive Software
6. Managing Travel for Planned Special Events
7. Impacts of Dynamically Displaying Messages on Changeable Message Signs
8. TMC Operations Manual
9. Coordinated Freeway and Surface Street Operational Plans and Procedures
10. TMC Staffing and Scheduling for Day-to-Day Operations
11. TMC Clearinghouse Development and Initiation
12. TMC Business Planning and Plans Handbook
13. TMC Performance Monitoring, Evaluation and Reporting Handbook
14. Developing and Using Concept of Operations in Transportation Management Systems
15. Multi-State, Statewide and Regional TMC Concept of Operations and Requirements
16. Recovery and Mitigation for TMCs

2. On-Going Projects

Procuring, Managing, and Evaluating the Performance of Contracted TMC Services: The major focus of this project is a scan of current TMC owners to determine outsourcing activities and the methodologies being utilized. A technical document will be developed to provide guidance and recommended practice to TMC owners and managers to determine their outsourcing needs, activities and the methodologies being utilized to operate and maintain the transportation management systems.

Project Champion: John Bassett, New York State DOT
FHWA Work Order Manager: Raj Ghaman
Contractor Lead: Christopher Poe, Texas Transportation Institute
Estimated Cost: \$200,000
Period of Performance: 16 Months

Milestones & Products:

- Annotated Outline – Draft version submitted in January 2008.
- Draft technical document – June 2009.
- Outreach material (fact sheet, tri-fold brochure, and presentation) – August 2009.

Driver Use of Real-Time En-Route Travel Time Information: The objectives of this study are to: (1) assess impacts of en-route real-time travel time/delay/speed information on drivers; (2) define the most effective way to provide en-route real-time travel time information; and (3) develop preliminary guidance

to practitioners for delivering en-route travel time information. The focus will be on en route travel time (or speed, delay) information presented by means of changeable message sign (CMS) displays.

Project Champion: Gene Donaldson, Delaware DOT
FHWA Work Order Manager: Tom Granda
Contractor Lead: Neil Lerner, Westat
Project Cost: \$300,000
Period of Performance: 24 Months

Milestones & Products:

- Literature review report – Submitted in June 2007.
- Research work plan – Final plan submitted in November 2007.
- Draft Research report – June 2009.
- Draft White Paper – June 2009.

TMC Human Factors Design Guidelines: Requirements Analysis: This project will perform a requirements analysis to identify and prioritize needs for human factors guidance in the design and operation of TMCs. This project includes developing and conducting a workshop with 5 to 10 TMC subject matter experts to identify and prioritize the key areas where human factors guidance is most needed. An approach will be identified for the development of a guidelines document to best support the identified user requirements.

Project Champion: Jeff Galas, Illinois DOT
FHWA Work Order Manager: Tom Granda
Contractor Lead: John Campbell, Battelle
Estimated Cost: \$50,000
Period of Performance: 8 Months

Milestones & Products:

- Project kickoff – October 16, 2008.
- Products: A project report, 3 sample guidelines, and a Statement of Work for guidelines development – July 2009.

3. Projects to Initiate

Methodologies to Measure and Quantify TMC Benefits: The purpose of this project is to gain a better understanding of and to quantify benefits in traffic operations due to the implementation of transportation management centers (TMCs) and the systems, infrastructure, and functions associated with their operations. This project will be performed through two phases: (1) Phase 1 – Produce a synthesis report and evaluate the feasibility of developing a software tool for quantifying the benefits of TMCs and (2) Phase 2 – Develop a software tool.

Project Champion: Jim McGee, Nebraska DOR
FHWA Work Order Manager: Raj Ghaman
Contractor Lead: TBD
Estimated Cost: \$75,000 for Phase 1 and \$175,000 for Phase 2
Period of Performance: 8 Months for Phase 1 and 16 Months for Phase 2

Milestones & Products:

- Anticipated project initiation – Summer 2009.

- Phase 1 Products: A Synthesis Report and Phase 2 Work Plan.

Integration of TMCs and Law Enforcement – Needs Assessment: The purpose of this project is to assess the current practices and identify institutional, operational and technical issues and challenges that all involving agencies are facing with integrating TMCs and law enforcement. The results of this effort will lead to identification of a list of topics and issues to be addressed and a series of next steps to be considered in a further study that is intended to develop a product that will provide necessary guidance to address agencies' needs.

Project Champion: John Domina, Nevada DOT
 FHWA Work Order Manager: Tom Granda
 Contractor Lead: TBD
 Estimated Cost: \$50,000
 Period of Performance: 8 Months

Milestones & Products:

- Anticipated project initiation – Summer 2009.
- Product: Findings Report.

Developing Travel Time Information: This project will review and synthesize the state of the practice, successful stories, and lessons learned around the country, as well as develop a technical document that provides guidance and recommended practices on the concepts, methods, techniques, and procedures for TMCs to collect, calculate, and predict travel time information.

Project Champion: Jeff Galas, Illinois DOT
 FHWA Work Order Manager: Raj Ghaman
 Contractor Lead: TBD
 Estimated Cost: \$150,000
 Period of Performance: 14 Months

Milestones & Products:

- Anticipated project initiation – Summer 2009.
- Products: A technical document and outreach material (fact sheet, brochure, and presentation).

TMC Clearinghouse Support Services, Phase 2: The purpose of this project is to provide continued and improved support services for the TMC Clearinghouse that will be created in the initial phase of the project. This phase 2 project will evaluate the feedback and recommend enhancement from the user and improve the functions of the clearinghouse as appropriate. In addition, this project will involve the support to facilitate outreach and awareness of TMC Clearinghouse to a broader audience base.

Project Champions: TMC PFS Co-Chairs
 FHWA Work Order Manager: Raj Ghaman
 Contractor Lead: TBD
 Estimated Cost: \$80,000
 Period of Performance: 12 Months

Milestones & Products:

- Anticipated project initiation – Fall 2009.
- Products: enhanced TMC Clearinghouse, evaluation report on user feedback, outreach and marketing material (fact sheet, brochure, and presentation).

Roles of TMCs in Emergency Operations: This project will assess the roles of TMCs in emergency operations (including winter operations). The project includes identifying the roles of TMCs during emergency situations, discussing how TMCs should prepare for emergency situations and implement actions, conducting a needs assessment to identify needs and gaps, and investigating organizational structures and models that have been used by various agencies.

Project Champion: Cathy McGhee, Virginia Transportation Research Council
FHWA Work Order Manager: Raj Ghaman
Contractor Lead: TBD
Estimated Cost: \$150,000
Period of Performance: 12 Months

Milestones & Products:

- Anticipated project initiation – TBD.
- Product: A study report.

TMC White Paper Series: This project will develop a series of white papers that identify issues and challenges that TMCs are facing; suggest areas and topics for further research; and provide recommendations on additional initiatives that are needed to address issues and challenges and to advance the state of TMC practice.

Project Champion: Mike Jenkinson, Caltrans
FHWA Work Order Manager: Raj Ghaman
Contractor Lead: TBD
Estimated Cost: \$50,000
Period of Performance: 8 Months

Milestones & Products:

- Anticipated project initiation – TBD.
- Products: A series of white papers.

Developing TMC Operator Training Program Guidelines: The objective of this project is to develop training and capacity building guidelines for TMC operators. These guidelines will include outlines of training modules. Processes for certification and re-certification for different operator positions will be analyzed. The project will also develop recommendations for the National Highway Institute to develop a comprehensive training program.

Project Champion: Scott Nodes, Arizona DOT
FHWA Work Order Manager: Tom Granda
Contractor Lead: TBD
Estimated Cost: \$75,000
Period of Performance: 10 Months

Milestones & Products:

- Anticipated project initiation – TBD.
- Products: TMC operator training program development guidelines.

TMC Data Capture for Performance and Mobility Measures: This project will synthesize best practices and lessons learned related to collecting and archiving TMC operation data for monitoring, evaluating and reporting performance and mobility measures at system levels as well as for specific scenarios or locations.

Project Champion: John Bassett, New York State DOT
FHWA Work Order Manager: Raj Ghaman
Contractor Lead: TBD
Estimated Cost: \$100,000
Period of Performance: 12 Months

Milestones & Products:

- Anticipated project initiation – TBD.
- Products: A synthesis report, a project fact sheet, and a presentation.